REMARKS

Based on the above amendments, claims 1-20 are pending in this application, of which claims 1, 12 and 17 are independent claims and have been amended. In particular, each of these claims have been amended to recite that the spacing of the encoding features from one another define spaces therebetween such that any two adjacent spaces form a unique sequence. Support for these amendments may be found, for example, on page 6, lines 3-10 of the application as filed.

In addition, claims 12 and 17 have been amended to overcome the 35 U.S.C. §112 rejections thereto in the Office Action. These amendments to claims 12 and 17 add an illumination source as suggested in the Office Action and are supported, for example, by claim 1 as originally presented.

Rejections Under 35 U.S.C. §112

Claims 12-20 stand rejected under 35 U.S.C. §112, second paragraph, for failing to recite an illumination source. Claims 12 and 17 have been amended to recite an illumination source and, thus, this rejection is overcome.

Claims 9 and 16 also stand rejected under 35 U.S.C. §112, second paragraph. Applicants respectfully traverse these rejections.

With respect to claims 9 and 16 the Office Action asserts that these claims are indefinite as to how any two adjacent spaces can disclose the diameter or wall composition material of the reservoir. Because the spaces are unique, and as disclosed on page 6, lines 11-20 of the application as filed, the spaces may identify a reservoir version. Thus, for example, if spacings of 0.096" and 0.072" are in view, the process can infer that Version 2 of the reservoir must be in use (see table on page 6 of the application). The reservoirs of course, have characteristics which include, for example, the diameter of the reservoir and the material the reservoir is composed of.

Claim 16 was also rejected because the "version" related to the reservoir was deemed indefinite. As disclosed on page 6, lines 11-20 of the application as filed, a version of the reservoir is just another, different, reservoir.

In view of the above, the 35 U.S.C. §112 rejections of claims 9 and 12-20 have been overcome.

Rejections Under 35 U.S.C. § 102 and 103

Claims 1-3, 10-13 and 17-20 stand rejected under 35 U.S.C. §103(a) in view of U.S. Patent No. 6,452,158 ("Whatley"). Claims 4-8 and 14-15 stand rejected under 35 U.S.C. §103(a) as unpatentable over Whatley in view of U.S. Patent No. 6,645,177 ("Shearn"). In view of the above amendments, Applicants respectfully traverse all of these rejections.

In particular, the Office Action admits that Whatley does not teach a plunger rod bearing an encoded pattern of encoding features where the spacing of the encoding features from one another defining spaces therebetween such that any two adjacent spaces form a unique sequence. (See, e.g., rejection of claims 5 and 6) Rather, the Office Action relies on Shearn as teaching a plurality of slots in the plunger rod being displaced at unique distances.

Applicants respectfully disagree. The slots disclosed in Shearn are "a linear grid made up of a series of equally spaced markers 58." (Col. 6, lines 47-48, emphasis added) As such, the spaces between these markers cannot form a unique sequence as recited in claim 1. Indeed, the fact that the spaces in Shearn are equally spaced requires that adjacent spaces would always present the same sequence, not a unique sequence as claimed.

The spacing between markers disclosed in Whatley is also not unique. Rather, the width of "a space 25 is" either 1T or 2T where T is a fixed distance. (Col. 3, lines 61-65)

In view of the above remarks, Applicants respectfully assert that neither Whatley nor Shearn, considered alone or in combination, teach or suggest a plunger rod bearing an encoded pattern of encoding features where the spacing of the encoding features from one another defining spaces therebetween such that any two adjacent spaces form a unique sequence as recited in claim 1. As such, claim 1 is patentable over Whatley and Shearn or any combination thereof.

Claims 12-16

Claim 12 is directed to a dispensing apparatus that includes, *inter alia*, a plunger rod bearing an encoded pattern of encoding features where the spacing of the encoding features from one another defining spaces therebetween such that any two adjacent spaces form a unique sequence. As discussed above, neither Whatley nor Shearn teach or suggest such plunger rod. Claim 12, therefore, is patentable over Whatley and Shearn.

Claims 13-16 depend from claim 12 and, therefore, are patentable for at least the same reason.

Claims 17-20

Claim 17 is directed to a method for measuring a rate of dispensing a substance by means of a dispenser having a piston that includes, *inter alia*, illuminating with an illumination source an encoded pattern of encoding features disposed upon a plunger rod coupled to a piston where the spacing of the encoding features from one another define spaces therebetween such that any two adjacent spaces form a unique sequence. As discussed above, neither Whatley nor Shearn teach or suggest such plunger rod. Claim 17, therefore, is patentable over Whatley and Shearn.

Claims 18-20 depend from claim 17 and, therefore, are patentable for at least the same reasons.

Conclusion

Applicants respectfully request that the examiner reconsider this application in view of all of the art. Applicants submit that the present application is in condition for allowance and early notice to that effect is respectfully solicited.

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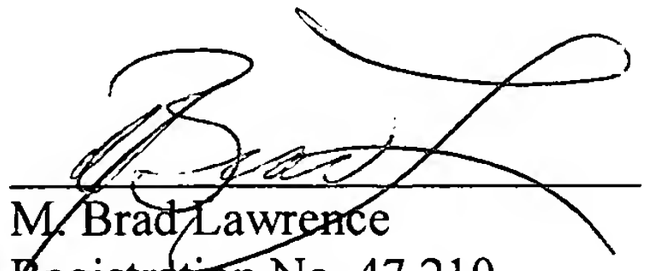
Respectfully submitted,



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